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EXAMINER
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KOCH, GEORGE R

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1791

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**FEB 04 2008**

**GROUP 1700**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/609,634  
Filing Date: July 01, 2003  
Appellant(s): KIMINO, KAZUNARI

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Thomas J. D'Amico  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11/16/2007 appealing from the Office action mailed 2/23/2007.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,711,989	Ciardella	1-1998
5,906,682	Bouras	5-1999
5,505,777	Ciardella	4-1996
5,935,375	Nakazawa	8-1999

6,007,631	Prentice	12-1999
6,017,392	Cavallaro	1-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

Claims 1, 2, 6-8, 10, 11 and 23, 24, 28-30, and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Ciardella (US 5,711,989).

As to claim 1 and 23, Ciardella discloses an apparatus (see Figure 5) for manufacturing a semiconductor device, comprising: a substrate holding unit (conveyor and fixer - see lift and lock mechanism in column 3, lines 5-13 and column 5, lines 36-40) for holding a semiconductor wafer substrate (i.e., a circuit board with semiconductor elements thereon, see columns 1-10), wherein said semiconductor wafer substrate is capable of being provided with at least one electrode formed on a first surface thereof (chip 10, solder balls 12, etc), a discharging mechanism (syringe 20 and dispensing needle 22) which is explicitly for discharging droplets (see abstract, which recites "drop generator") of viscous material (for example, column 8, lines 8-10) contained in a viscous material container unit (syringe 84) through at least one discharging nozzle (nozzle 70) onto said first surface of said semiconductor wafer substrate held on said substrate holding unit; a drive mechanism (conveyor 22 and XYZ electromechanical positioner 38) for displacing at least one of said semiconductor wafer substrate and said discharging nozzle; and a control unit (items 18, 38, 40, and 42) for controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is attached to said first surface of said

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semiconductor wafer substrate except at least a portion of said electrode. The camera and vision circuit is an image information device (item 16 and 44) that provides image information of the substrate (such as the location of the drops), and effectively allows for the positioning of the drive mechanism of the nozzle, and therefore provides and is capable of providing the control unit functionality as claim. The camera is capable of capturing the image prior to discharge. The apparatus of Ciardella, disclosed as dispensing viscous material, is capable of dispensing any sub-species of viscous material including raw sealant resin.

As to claim 2 and 24, Ciardella is capable of being used wherein said electrode formed on said first surface of said semiconductor wafer substrate is a protruded-shaped electrode, and wherein said control unit is adapted to control said discharging mechanism and said drive mechanism such that said raw sealant resin is attached to said first surface except a tip portion of said protruded-shaped electrode.

As to claim 6 and 28, Ciardella discloses a heater (see column 6, lines 64-67 and column 7, lines 1-19) for heating said raw sealant resin contained in said resin container unit.

As to claim 7 and 29, the control unit of Ciardella is capable of controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to at least a portion of dicing lines of said semiconductor wafer substrate.

As to claim 8 and 30, the control unit of Ciardella is capable of being adapted to control said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to dicing lines of said semiconductor wafer substrate and forms a layer with edges of a rounded shape in a vicinity of intersecting points of said dicing lines.

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As to claim 10 and 32, the control unit of Ciardella is capable of controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to at least a portion of dicing lines of said semiconductor wafer substrate.

As to claim 11 and 33, the control unit of Ciardella is capable of controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to dicing lines of said semiconductor wafer substrate and forms a layer with edges of a rounded shape in vicinity of intersecting points of said dicing lines.

Claims 1, 2, 4, 6-8, 10, 11 and 23, 24, 26, 28-30, 32-36, 38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bouras (US 5,906,682), as evidenced by Ciardella '777 (US 5,505,777). It should be noted that the Bouras reference incorporates by reference the US 5,505,777 to Ciardella reference in column 3, lines 62-65 of Bouras.

As to claim 1 and 23, Bouras and Ciardella '777 discloses an apparatus (see Figure 5 of Bouras, Figure 2 of Ciardella '777) for manufacturing a semiconductor device, comprising: a substrate holding unit (conveyor and fixer - see lift and lock mechanism in Ciardella '777, column 3, lines 5-13 and column 5, lines 36-40) for holding a semiconductor wafer substrate (i.e., a circuit board with semiconductor elements thereon, see columns 1-10), wherein said semiconductor wafer substrate is capable of being provided with at least one electrode formed on a first surface thereof (chip 10, solder balls 12, etc), a discharging mechanism (syringe 20 and dispensing needle 22, see also Figure 3 of Ciardella '777) which is explicitly for discharging droplets (see abstract, which recites "drop generator") of viscous material (for example, column 8, lines 8-10) contained in a viscous material container unit (syringe 20 of Bouras, syringe 84 of

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Ciardella '777) through at least one discharging nozzle (nozzle 70) onto said first surface of said semiconductor wafer substrate held on said substrate holding unit; a drive mechanism (conveyor 22 and XYZ electromechanical positioner 38) for displacing at least one of said semiconductor wafer substrate and said discharging nozzle; and a control unit (items 18, 38, 40, and 42) for controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is attached to said first surface of said semiconductor wafer substrate except at least a portion of said electrode. The camera and vision circuit is an image information device (item 16 and 44) that provides image information of the substrate (such as the location of the drops), and effectively allows for the positioning of the drive mechanism of the nozzle, and therefore provides and is capable of providing the control unit functionality as claim. The apparatus of Bouras, disclosed as dispensing viscous material, is capable of dispensing any sub-species of viscous material including raw sealant resin. Bouras explicitly discloses capturing image information of the substrate prior to discharge (see column 6, lines 18-36).

As to claim 2 and 24, Bouras is capable of being used wherein said electrode formed on said first surface of said semiconductor wafer substrate is a protruded-shaped electrode, and wherein said control unit is adapted to control said discharging mechanism and said drive mechanism such that said raw sealant resin is attached to said first surface except a tip portion of said protruded-shaped electrode.

As to claim 4 and 26, Bouras (see column 3, lines 62-65) discloses an improvement of Ciardella '777 wherein the substrate holding unit is provided with a substrate temperature control mechanism (item 44, 46 and 47, see column 5, lines 32-47) for controlling a temperature of at least said semiconductor wafer substrate.

As to claim 6 and 28, both Bouras (item 26) and Ciardella '777 (see column 6, lines 64-67 and column 7, lines 1-19) disclose a heater for heating said raw sealant resin contained in said resin container unit.

As to claim 7 and 29, the control unit of both Bouras and Ciardella '777 is capable of controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to at least a portion of dicing lines of said semiconductor wafer substrate.

As to claim 8 and 30, the control unit of both Bouras and Ciardella '777 is capable of being adapted to control said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to dicing lines of said semiconductor wafer substrate and forms a layer with edges of a rounded shape in a vicinity of intersecting points of said dicing lines.

As to claim 10 and 32, the control unit of both Bouras and Ciardella '777 is capable of controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to at least a portion of dicing lines of said semiconductor wafer substrate.

As to claim 11 and 33, the control unit of both Bouras and Ciardella '777 is capable of controlling said discharging mechanism and said drive mechanism such that said raw sealant resin is not attached to dicing lines of said semiconductor wafer substrate and forms a layer with edges of a rounded shape in vicinity of intersecting points of said dicing lines.

As to claim 34, Bouras, which discloses an improvement of Ciardella '777, further discloses that a similar semiconductor wafer substrate (either of chip 10 or circuit board 16), the semiconductor wafer substrate having at least one electrode (items 12 and 14) on a first surface thereof. Ciardella '777 discloses the discharging head (nozzle 70 and subelements - see Figure 3), the resin container unit (syringe 84), the drive mechanism (conveyor 22 and XYZ



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electromechanical positioner 38), and control unit (items 18, 38, 40, and 42) for controlling the discharging head and the drive mechanism (see rejection of claim 1 and 23 above) and wherein the substrate is held in a substrate holding unit (conveyor and fixer - see lift and lock mechanism in column 3, lines 5-13 and column 5, lines 36-40). The camera and vision circuit is an image information device (item 16 and 44) that provides image information of the substrate (such as the location of the drops), and effectively allows for the positioning of the drive mechanism of the nozzle, and therefore provides and is capable of providing the control unit functionality as claim.

As to claim 35, Bouras as incorporated discloses that at least one electrode has a protruded shape (as seen in Figures 1 and 2).

As to claim 36, Bouras and Ciardella '777 is capable of being used to control said discharging head and said drive mechanism such that the first surface of the semiconductor wafer is covered by said raw sealant resin except a tip portion of said protruded-shaped electrode.

As to claim 38, Bouras, which is an improvement of Ciardella '777, discloses that the substrate holding unit is provided with a substrate temperature control mechanism (item 44, 46 and 47, see column 5, lines 32-47) for controlling a temperature of at least said semiconductor wafer substrate.

As to claim 40, both Bouras (item 26) and Ciardella '777 disclose a heater (see column 6, lines 64-67 and column 7, lines 1-19) for heating said raw sealant resin contained in said resin container unit.

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Claims 4, 26, 34-36, 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciardella (US 5,711,989) as applied to claims 1, 2, 6-8, 10, 11 and 23, 24, 28-30, and 32-33 above, and further in view of Bouras (US 5,906,682).

As to claim 4 and 26, Ciardella does not suggest that the substrate holding unit is provided with a temperature control mechanism.

Bouras (see column 3, lines 62-65) discloses an improvement of Ciardella wherein the substrate holding unit is provided with a substrate temperature control mechanism (item 44, 46 and 47, see column 5, lines 32-47) for controlling a temperature of at least said semiconductor wafer substrate. One in the art would appreciate that preventing hot spots on the circuit board and its components would protect the substrate from damage. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilize such a temperature control mechanism in order to protect the substrate from overheating.

As for claim 34, Ciardella discloses the discharging head (nozzle 70 and subelements - see Figure 3), the resin container unit (syringe 84), the drive mechanism (conveyor 22 and XYZ electromechanical positioner 38), and control unit (items 18, 38, 40, and 42) for controlling the discharging head and the drive mechanism (see rejection of claim 1 and 23 above) and wherein the substrate is held in a substrate holding unit (conveyor and fixer - see lift and lock mechanism in column 3, lines 5-13 and column 5, lines 36-40). The camera and vision circuit is an image information device (item 16 and 44) that provides image information of the substrate (such as the location of the drops), and effectively allows for the positioning of the drive mechanism of the nozzle, and therefore provides and is capable of providing the control unit functionality as claim.

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However, while Ciardella does disclose a semiconductor substrate (circuit board 35), Ciardella is silent as to the details of the circuit board.

Bouras, which discloses an improvement of Ciardella, further discloses that a similar semiconductor wafer substrate (either of chip 10 or circuit board 16), the semiconductor wafer substrate having at least one electrode (items 12 and 14) on a first surface thereof. Therefore, one in the art would appreciate that the claimed substrate can be used with Ciardella. One in the art would utilize the claimed substrate in order to properly coat the substrate and to reduce the need for multiple versions of similar apparatus. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such a substrate with the apparatus of Ciardella in order to reduce apparatus costs.

As to claim 35, Bouras as incorporated discloses that at least one electrode has a protruded shape (as seen in Figures 1 and 2).

As to claim 36, Ciardella is capable of being used to control said discharging head and said drive mechanism such that the first surface of the semiconductor wafer is covered by said raw sealant resin except a tip portion of said protruded-shaped electrode.

As to claim 38, Ciardella does not suggest that the substrate holding unit is provided with a temperature control mechanism.

Bouras discloses an improvement of Ciardella wherein the substrate holding unit is provided with a substrate temperature control mechanism (item 44, 46 and 47, see column 5, lines 32-47) for controlling a temperature of at least said semiconductor wafer substrate. One in the art would appreciate that preventing hot spots on the circuit board and its components would protect the substrate from damage. Therefore, it would have been obvious to one of ordinary

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skill in the art at the time of the invention to have utilize such a temperature control mechanism in order to protect the substrate from overheating.

As to claim 40, Ciardella discloses a heater (see column 6, lines 64-67 and column 7, lines 1-19) for heating said raw sealant resin contained in said resin container unit.

Claims 3, 5, 25, 27, 31 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciardella as applied to claims 1 and 23 above, or Ciardella and Bouras as applied to claim 34 above, and further in view of Nakazawa (US 5,935,375).

As to claim 3, 25 and 37, Ciardella, Ciardella '777 and/or Bouras does not disclose that said discharging mechanism is provided with a plurality of discharging nozzles.

Nakazawa discloses using a discharging mechanism is provided with a plurality of discharging nozzles (see Figures 7A, 7B, 8A, and 8B). Nakazawa discloses that different nozzle sizes can be used in order minimize the differences in the rate of resin dispensing, so that the formation of resin-less voids is deterred (column 4, lines 26-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized multiple nozzles as in Nakazawa in order to avoid resin-less voids.

Furthermore, as to claims 5, 25, and 37, the discharging nozzle of Nakazawa meet the limitation of being two different kinds of discharging mechanisms, heads or means.

As to claim 9 and 31, the control unit of Ciardella and/or Bouras is capable of said control unit controls said discharging mechanism and said drive mechanism such that a first discharging mechanism of said at least two kinds of discharging mechanisms is capable of

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discharging droplets of raw sealant resin of an amount smaller than other discharging mechanisms used for discharging said raw sealant resin for an area in a vicinity of said electrode.

Claims 5, 9, 27, 31 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciardella as applied to claims 1 and 23 above, or Ciardella and Bouras as applied to claim 34 above, or Bouras as evidenced by Ciardella '777, and further in view of Prentice (US 6,007,631).

As to claim 5, 27, and 39, Ciardella, Ciardella '777 and/or Bouras does not disclose at least two kinds of discharging mechanisms, heads or means, each being capable of discharging respective different amounts of raw sealant resin.

Prentice discloses at least two kinds of discharging mechanisms, heads or means, (see Figure 5) each being capable of discharging respective different amounts of raw sealant resin. Prentice discloses that such multiple mechanisms allow for parallel processing of the substrates (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have two discharging mechanisms in order to achieve parallel processing.

As to claim 9 and 31, the control unit of either Ciardella and/or Bouras is capable of said control unit controls said discharging mechanism and said drive mechanism such that a first discharging mechanism of said at least two kinds of discharging mechanisms is capable of discharging droplets of raw sealant resin of an amount smaller than other discharging mechanisms used for discharging said raw sealant resin for an area in a vicinity of said electrode.

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Claims 5, 9, 27, 31 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciardella as applied to claims 1 and 23 above, or Ciardella and Bouras as applied to claim 34 above, or Bouras as evidenced by Ciardella '777, and further in view of Cavallaro (US 6,017,392).

As to claim 5, 27, and 29, Ciardella and/or Bouras does not disclose at least two kinds of discharging mechanisms, heads or means, each being capable of discharging respective different amounts of raw sealant resin.

Cavallaro discloses at least two kinds of discharging mechanisms, heads or means, each being capable of discharging respective different amounts of raw sealant resin. Cavallaro discloses that each mechanism can be connected to or include different types of nozzles and/or dispense different types of liquids (column 2). Cavallaro discloses that this system allows for the assembly to dispense at different locations without it being necessary to move the entire pump assembly every time a dot is dispensed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have two discharging mechanisms in order to dispense at multiple locations without moving the entire assembly.

As to claim 9 and 31, the control unit of Ciardella and/or Bouras is capable of said control unit controls said discharging mechanism and said drive mechanism such that a first discharging mechanism of said at least two kinds of discharging mechanisms is capable of discharging droplets of raw sealant resin of an amount smaller than other discharging mechanisms used for discharging said raw sealant resin for an area in a vicinity of said electrode.

#### **(10) Response to Argument**

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Applicant argues on page 10-11 of the brief, in section A, that Ciardella (US Patent 5,711,989, referred to in applicant's brief as Ciardella I) does not disclose, teach, or suggest an image information device for capturing image information prior to said raw sealant resin being discharged (see page 11 of the applicant's brief). However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, applicant is claiming an apparatus. The dispensed sealant is not part of the apparatus, and monitoring the substrate before or after the dispensing is a step. It is well established that the manner of operating the device does not differentiate apparatus claims from the prior art. MPEP 2114. The actual structural elements of applicant's apparatus are present in Ciardella, and the apparatus is capable of performing this intended use.

Additionally, the material or article worked upon does not limit apparatus claims. MPEP 2115. Applicant's argument in this respect is an attempt to limit apparatus claims by referring to the material or article worked upon (i.e., the presence or absence of raw sealant on the substrate). The argument is not based upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims.

On pages 11-12 of the brief, in section A.1., applicant argues that with respect to claims 2 and 24, Ciardella I is silent as to a protruded shape electrode. However, this limitation is again an attempt to limit apparatus claims by referring to the material or article worked upon (i.e., the presence or absence of a protruded shape electrode on the substrate). The argument is not based

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upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims. Furthermore, this limitation is also a step (being performed on the substrate), and is intended use as well.

On page 12 of the brief, in section A.2., applicant argues that with respect to claims 7 and 29, applicant argues that the control unit of Ciardella I does not control the discharging mechanism and drive mechanism such that the raw seal resin is not attached to at least of portion of the dicing lines of the semiconductor wafer substrate. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, applicant is claiming an apparatus. The dicing lines is not part of the apparatus, and the specific claimed movements are a step. It is well established that the manner of operating the device does not differentiate apparatus claims from the prior art. MPEP 2114. The actual structural elements of applicant's apparatus are present in Ciardella I, including control units and drive mechanisms, and the apparatus is capable of performing this intended use.

Additionally, the material or article worked upon does not limit apparatus claims. MPEP 2115. Applicant's argument in this respect is an attempt to limit apparatus claims by referring to the material or article worked upon (i.e., the presence or absence of dicing lines on the substrate). The argument is not based upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims.



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Applicant argues on page 13 of the brief, in section B, that Bouras (US Patent 5,906,682) does not disclose, teach, or suggest an image information device for capturing image information prior to said raw sealant resin being discharged (see page 13 of the applicant's brief), that the control unit uses this image information with the drive mechanism, and that the discharge mechanism discharges to the substrate excluding at least a portion of the electrode. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, applicant is claiming an apparatus. The dispensed sealant is not part of the apparatus, and monitoring the substrate before or after the dispensing is a step, and the amount of sealant dispensed is also a step. It is well established that the manner of operating the device does not differentiate apparatus claims from the prior art. MPEP 2114. The actual structural elements of applicant's apparatus are present in Bouras, and the apparatus is capable of performing these intended uses.

Additionally, the material or article worked upon does not limit apparatus claims. MPEP 2115. Applicant's argument in this respect is an attempt to limit apparatus claims by referring to the material or article worked upon (i.e., the presence or absence of raw sealant on the substrate, the presence of the electrode tip). The argument is not based upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims.

On pages 14 of the brief, in section B.1., applicant argues that with respect to claims 2, 24 and 36, Bouras does not teach applying resin to all except a tip portion of said protruded shape electrode. However, this limitation is again an attempt to limit apparatus claims by referring to the material or article worked upon (i.e., the presence or absence of a protruded shape electrode on the substrate. The argument is not based upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims. Furthermore, this limitation is also a step (being performed on the substrate), and is intended use as well.

On page 14 of the brief, in section B.1., applicant argues that with respect to claims 7 and 29, applicant argues that the control unit of Bouras does not control the discharging mechanism and drive mechanism such that the raw seal resin is not attached to at least of portion of the dicing lines of the semiconductor wafer substrate. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, applicant is claiming an apparatus. The dicing lines is not part of the apparatus, and the specific claimed movements are a step. It is well established that the manner of operating the device does not differentiate apparatus claims from the prior art. MPEP 2114. The actual structural elements of applicant's apparatus are present in Bouras, including control units and drive mechanisms, and the apparatus is capable of performing this intended use.

Additionally, the material or article worked upon does not limit apparatus claims. MPEP 2115. Applicant's argument in this respect is an attempt to limit apparatus claims by referring to

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the material or article worked upon (i.e., the presence or absence of dicing lines on the substrate).

The argument is not based upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims.

On page 15, in section C, applicant argues that claim 4, 26, 34-36, 38 and 40 are not obvious over Ciardella I and Bouras for the reasons previously given. The examiner disagrees with applicant's arguments for the reasons stated above.

On page 15, in section C.1., applicant argues that with respect to claims 36, Bouras does not teach applying resin to all except a tip portion of said protruded shape electrode. However, this limitation is again an attempt to limit apparatus claims by referring to the material or article worked upon (i.e., the presence or absence of a protruded shape electrode on the substrate. The argument is not based upon any particular apparatus structure but a characteristic of the substrate, and this does not limit apparatus claims. Furthermore, this limitation is also a step (being performed on the substrate), and is intended use as well.

On page 16, in section D, applicant argues that claim 3, 5, 25, 27, 31, and 37 are not obvious over the various references and especially in view of Nakazawa for the reasons previously given. The examiner disagrees with applicant's arguments for the reasons stated above.

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On page 16, in section E, applicant argues that claim 5, 9, 27, 31 and 39 are not obvious over the various references in view of Prentice for the reasons previously given. The examiner disagrees with applicant's arguments for the reasons stated above.

On pages 16-18, in section F, applicant argues that claim 5, 9, 27, 31, and 39 are not obvious over the various references in view of Cavallaro for the reasons previously given. The examiner disagrees with applicant's arguments for the reasons stated above.

The applicant also makes a series of arguments with respect to the "configured to perform" language. The examiner is of the position that (1) the configured to performed language speaks merely to intended use, and alternatively, that (2) the prior art structure is capable of performing the intended use. Thus, even if the prior art references are considered as not disclosing the steps, the apparatus structure of the prior art reads on the claim structure, and the apparatus

On pages 17-18, applicant cites *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.* and *In re Shaffer* to support the argument that intended use may limit apparatus claims. However, there are key differences between the claims in issue in the cited case and the current claims. As Judge Rader noted, the claims in *Catalina* were directed towards system utilizing kiosk-like terminals for dispensing coupons located at remote locations and connected to a central host computer system. The intended use was the actual location of these terminals, which can be thought of as a structural or positional relationship between the elements. Here, the intended use is a step performed by an apparatus. No structural heft to the means is added to the

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claims of this application through the function, since the means are the same (cameras for capturing the image) and the sole difference is what is on the substrate at the time the image is capture.

The final paragraph of applicants arguments, on page 18, notes that claims 23-33 are means plus function claims. The examiner agrees, notes that the means cited in the prior art above are identical and capable of performing the same function.

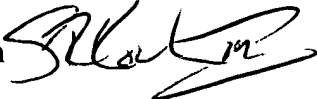
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

George Koch



Conferees:

Romulo Delmendo



Philip Tucker



PHILIP C. TUCKER, PH.D.  
SUPERVISORY PATENT EXAMINER